

AD-A116 926

ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
19305 A MLRS, 19304 B MLRS MISSILE NUMBERS BN-021, BN-030, BN-0--ETC(U)
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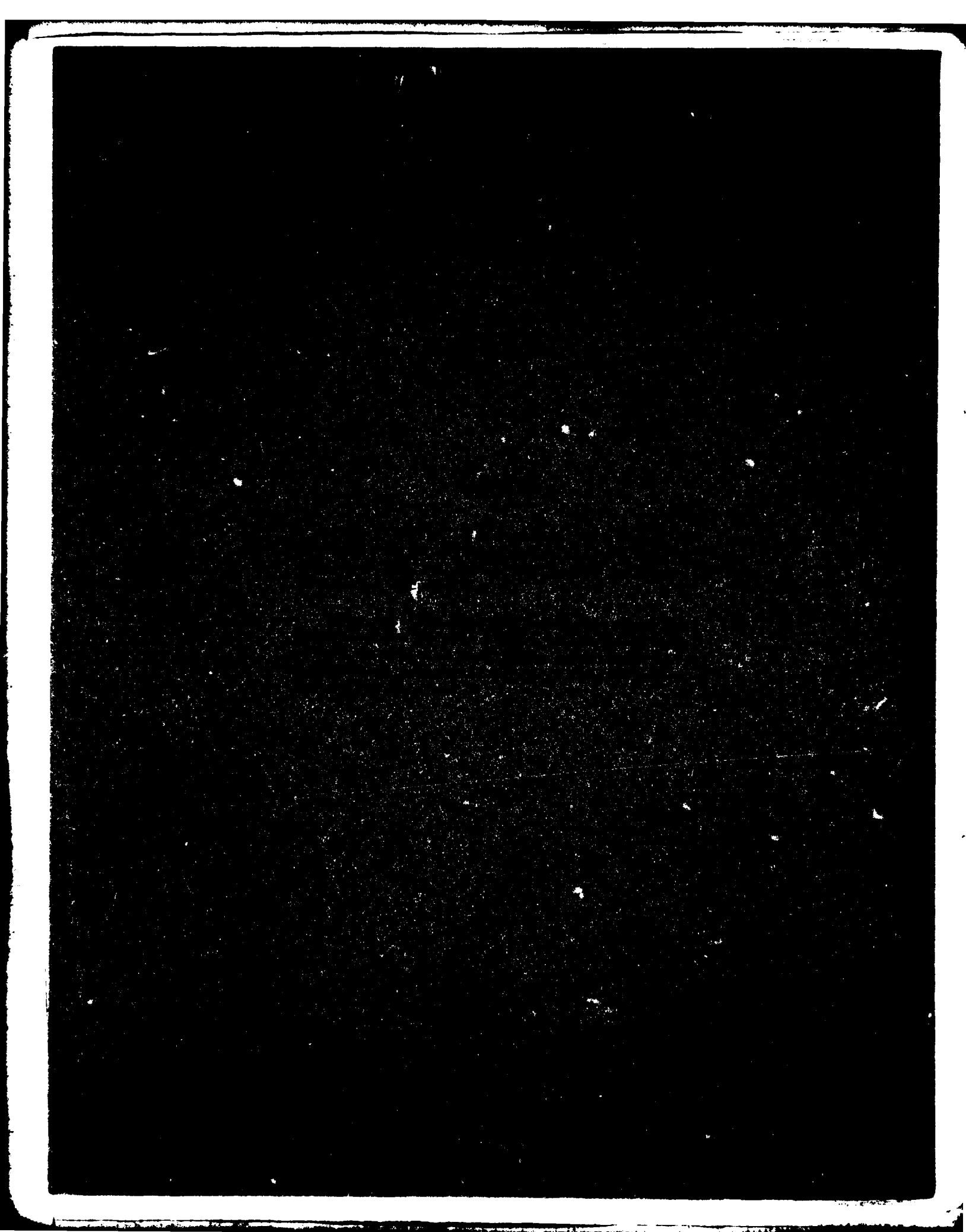
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AD A116926

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AVN Number 385-9552

MONSIEUR SCIENCE LABORATORY
WHITE LANE HESSLE HALL, NEW YORK

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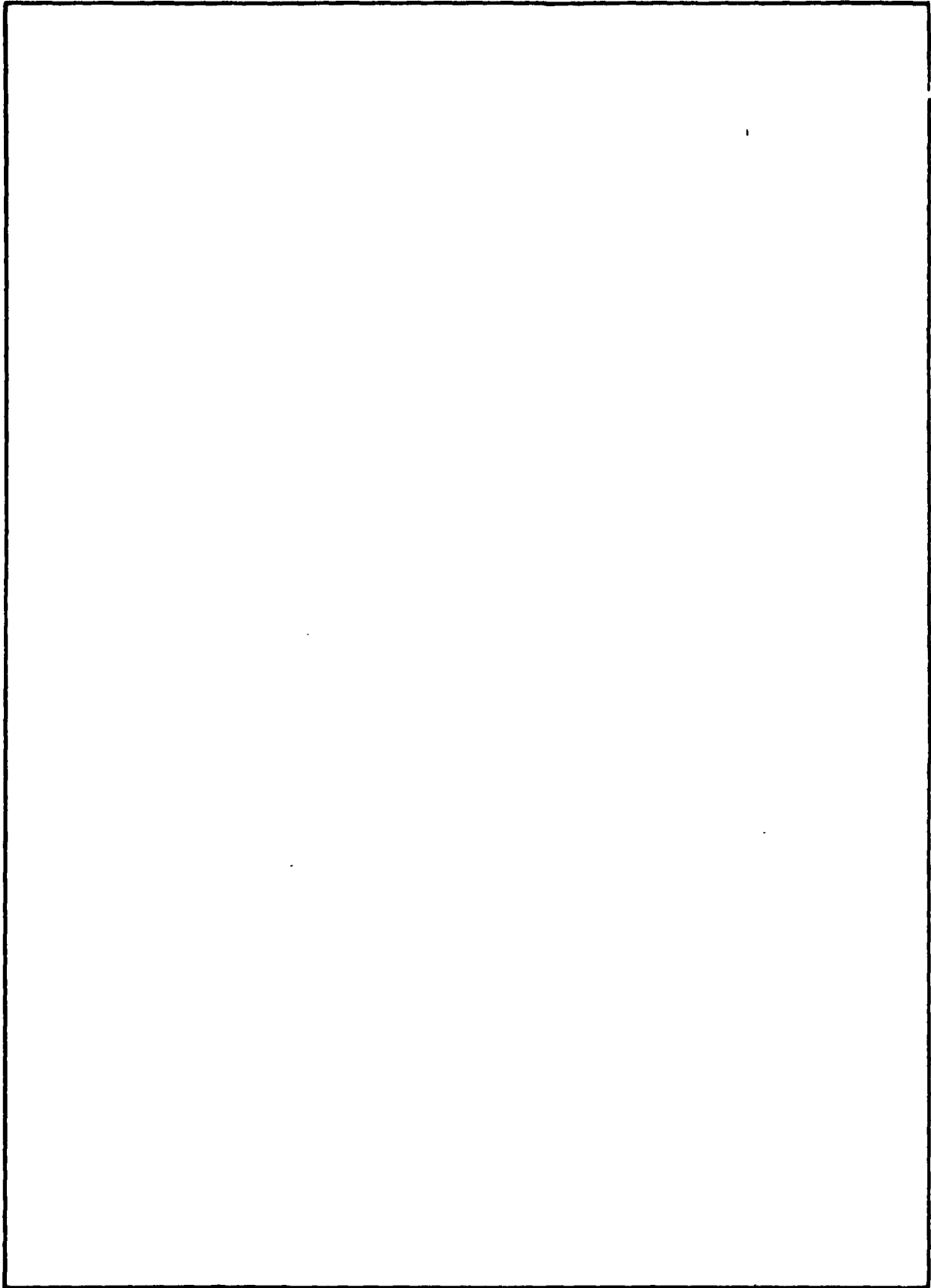


UNCLASSIFIED

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19305A, 19304B MLRS, Missile Numbers BN-021, BN-030, BN-024, BN-028, BN-015, Round Numbers V-256/ MD-96 THRU V-260/MD-100 presented in tabular form.		

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TAB

Summary

Discussion

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A

INTRODUCTION

19305A and 19304B MLRS, Missile Numbers BN-021, BN-030, BN-024, BN-028, and BN-015, Round Numbers V-256/MD-96 Thru V-260/MD-100, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1400, 1400 05, 1405, 1405:05, and 1405:10 MDT, on 07 May 1982. The scheduled launch times were 1300, 1300:04.5, 1303, 1303:04.5, and 1303:09 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from pilot-balloon observations at :

SITE AND ALTITUDE

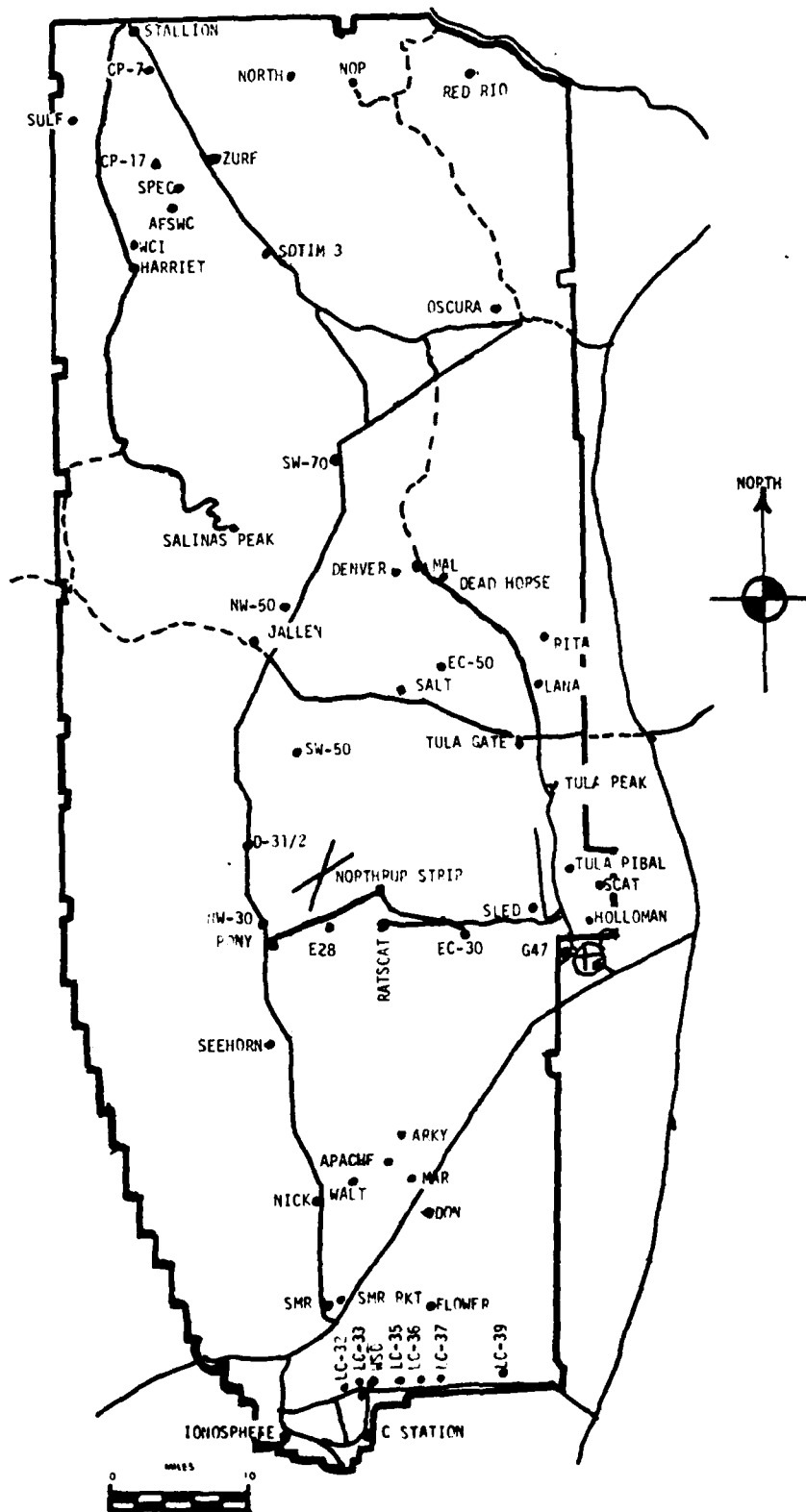
WSD	2 Km
Don	2 Km

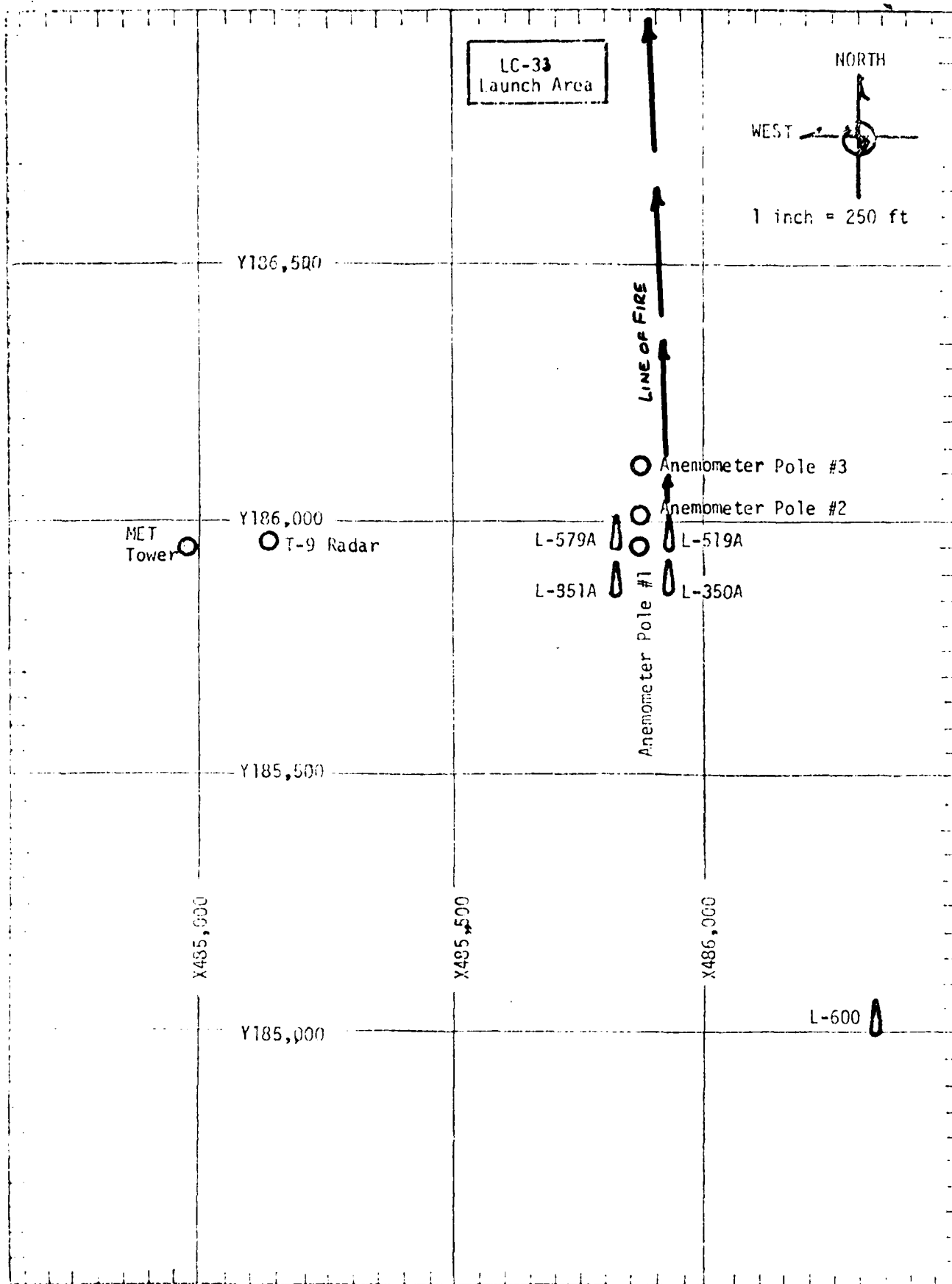
(2) Air structure data (rawinsonde) were collected at the following Met Sites:

SITE AND TIME

WSD	1000 MDT
LC-37	1100 MDT
WSD	1200 MDT
LC-37	1300 MDT
WSD	1400 MDT

WSMR METEOROLOGICAL SITES





PROJECT SURFACE OBSERVATION

STATION LC-33 E&A									
DATE 07		Max		82		Y= 484.982.64		Y=185.957.73 H=3983.00	
TIME	PRECIPITATION	TEMPERATURE OF	DEW POINT OF	RELATIVE HUMIDITY	WIND DIRECTION	WIND SPEED	CHARACTER	WIND	WIND
MDL	in	°C	°C	%	deg	kts	kts	deg	kts
1400	879.2	26.0	-3.4	14	230	05		50	
1405	879.2	26.0	-3.4	14	210	04		50	

INSTRUCTIONS	CLOUDS						REMARKS
	1st LAYER		2nd LAYER		3rd LAYER		
IN VISIBILITY	AMT	TYPE	AMT	TYPE	AMT	TYPE	HGT

PSYCHROMETRIC COMPUTATION

TIME: MDT	1400	1405
DRY BULB TEMP.	26.0	26.0
WET BULB TEMP.	11.1	11.1
WET BULB DIFF.	14.9	14.9
DEW POINT	-3.4	-3.4
RELATIVE HUMID.	14	14

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	209	04	T-30	MISG	04	T-30	192	09
T-20	195	03	T-20	MISG	03	T-20	204	08
T-10	196	04	T-10	MISG	03	T-10	205	08
T 0.0	197	04	T 0.0	MISG	03	T 0.0	211	09
T+10	202	04	T+10	MISG	02	T+10	191	06

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	189	04	T-30	196	03
T-20	231	03	T-20	223	04
T-10	238	05	T-10	232	07
T 0.0	232	05	T 0.0	239	10
T+10	243	09	T+10	245	10

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	201	05	T-30	211	09
T-20	211	06	T-20	210	08
T-10	231	07	T-10	219	10
T 0.0	230	11	T 0.0	224	10
T+10	232	11	T+10	225	07

TABLE 4 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.93 Y186,012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.60 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30		MISG	T-30	187	05	T-30		MISG
T-20	213	07	T-20	161	08	T-20	170	07
T-10	186	08	T-10	159	05	T-10	203	07
T 0.0	200	07	T 0.0	183	03	T 0.0	210	10
T+10	214	09	T+10	171	05	T+10	170	08

TABLE 5 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	213	04	T-30	216	04
T-20	228	05	T-20	219	05
T-10	209	04	T-10	212	04
T 0.0	209	04	T 0.0	200	03
T+10	225	04	T+10	225	03

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	202	03	T-30	200	05
T-20	210	06	T-20	207	07
T-10	172	07	T-10	197	08
T 0.0	150	06	T 0.0	200	07
T+10	189	03	T+10	200	10

E-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 07 May 1982

SITE: WSD

TIME: 1416 MDT

WSTM COORDINATES:

X= 488,580.00

Y= 185,045.00

H= 3,989.00

SITE: DON

TIME 1400 MDT

WSTM COORDINATES:

X= 511,988.37

Y= 247,396.36

H= 3,996.83

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	170	02
150	306	03
210	276	04
270	211	03
330	199	04
390	278	01
500	332	03
650	255	01
800	160	03
950	087	03
1150	079	03
1350	121	06
1550	142	02
1750	150	02
2000	182	08

Data obtained from Nike-Herc
Radar tracked pilot-balloon
observation.

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		CALM
150	306	04
210	334	06
270	336	04
330	331	05
390	311	06
500	338	04
650	003	04
800	011	03
950	003	02
1150	302	01
1350	173	01
1550	129	01
1750	107	02
2000	152	04

Data obtained from RAPTS T-9
Radar tracked pilot-balloon
observation.

TABLE 7

AIMING AND T-TIME COMPUTER MET MESSAGES

07 May 1982

WSD 1000 MDT

METCM1324064

071600122882

00222002 29370882

01328004 29030872

02335003 28730846

03436002 28500807

04530004 28110760

05526006 27670715

06581008 27470672

07543008 27270631

08535011 26950593

09561014 26650556

10554013 26340522

11520012 25950489

12495015 25320442

LC-37 1100 MDT

METCM1324063

071700124881

00196003 29190881

01301005 29090870

02275005 28850845

03317002 28480806

04495006 28060759

05519009 27710714

06564008 27440671

07500009 27210630

08522012 26890592

09553013 26580555

10555012 26230521

11518014 25830488

12489016 25200441

WSD 1200 MDT

METCM1324064

071800122882

00409005 29800882

01420004 29440871

02362006 29090846

03407008 28690807

04343004 28210760

05603007 27740715

06605009 27400672

07492011 27320632

J8494012 26960593

09534012 26620557

10524013 26300522

11495017 25920489

12484018 25280443

LC-37 1300 MDT

METCM1324063

071900124880

00000000 29550880

01640006 29440870

02491002 29170845

03510004 28750806

04331003 28250759

05045001 27790714

06531004 27440671

07483010 27210631

08502012 26910592

09519013 26600556

10508012 26270521

11488016 25910488

12484022 25260442

WSD 1400 MDT

METCM1324064

072000122880

00267006 29820880

01281009 29700870

02326008 29390845

03317010 28920806

04290006 28420760

05222003 27940715

06419006 27550673

07489017 27310632

08483016 26940594

09477012 26610557

10486010 26330522

11484018 25960489

12475023 25280443

STATION ALTITUDE 3289.0 FEET 45L
 7 MAY 62 1000 MDT
 ASCENSION NO. 196

SIGNIFICANT LEVEL DATA
 1270020190
 WHITE SANDS

GEOD. TIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 8

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DEWPOINT	HUMIDITY PERCENT
MILLIBARS	MSL FEET	DEGREES CELSIUS	DEGREES CELSIUS	
682.0	3989.0	19.3	7.1	45.0
672.0	4306.8	15.4	2.0	42.0
650.0	5018.0	13.0	1.3	43.0
824.6	5854.4	11.0	-3.5	34.0
805.4	6501.2	11.6	-8.3	24.0
700.0	10282.6	1.0	-17.0	22.0
651.0	12169.3	1.0	-14.4	20.0
592.2	14679.3	-3.9	-22.4	22.0
558.6	16166.4	-6.8	-25.9	20.0
542.4	16340.6	-7.5	-25.5	22.0
500.0	19604.9	-12.4	-29.7	22.0
400.0	24404.0	-26.2	-41.1	23.0
343.2	28044.2	-35.1	-48.0	25.0
330.2	28327.3	-36.8	-49.5	25.0
360.0	31067.4	-42.4		
250.0	35064.3	-51.6		
229.0	36924.5	-55.2		
200.0	39750.2	-58.6		
183.8	41493.3	-60.1		
179.0	42036.3	-61.1		
170.0	43099.3	-58.3		
150.0	45704.9	-56.8		
113.8	51423.5	-60.8		
107.0	52692.3	-59.3		
100.0	54084.3	-61.2		

STATION ALTITUDE 3939.00 FEET MSL
7 MAY 82 1000 MDT
ACQUISITION NO. 196

UPPER AIR DATA
1270020196
WHITE SANDS

GEODETIC COORDINATES
J2.40043 LAT DEG
106.37033 LONG DEG

TABLE 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TH)	SPEED KNOTS	
3989.5	882.0	19.3	45.0	1040.1	667.1	125.0	1.9	1.000278
4000.0	881.7	19.2	44.9	1040.2	667.5	125.4	1.9	1.000277
4500.0	800.0	14.9	42.3	1044.0	662.2	147.9	1.5	1.000205
5000.0	850.6	13.6	43.0	1030.1	690.7	179.0	1.4	1.000200
5500.0	835.3	12.6	37.8	1015.9	659.3	205.1	1.8	1.000252
6000.0	820.2	11.8	31.7	1000.9	656.2	225.0	1.8	1.000243
6500.0	805.4	11.6	24.0	983.9	637.9	240.5	1.9	1.000235
7000.0	790.6	10.3	23.7	970.3	650.4	279.3	2.1	1.000230
7500.0	770.1	9.0	23.5	957.0	654.8	290.7	2.8	1.000226
8000.0	761.8	7.7	23.2	943.0	653.3	292.0	3.5	1.000222
8500.0	747.8	6.4	22.9	930.0	651.0	280.3	4.6	1.000218
9000.0	734.1	5.1	22.7	918.1	650.2	277.3	5.7	1.000214
9500.0	720.6	3.8	22.4	905.3	648.7	294.0	6.3	1.000211
10000.0	707.4	2.5	22.1	893.1	647.1	303.4	7.1	1.000207
10500.0	694.3	1.7	21.0	879.2	646.1	323.3	8.2	1.000203
11000.0	681.3	1.5	21.2	863.4	645.9	320.3	8.1	1.000200
11500.0	668.5	1.3	20.7	847.9	645.0	320.9	7.7	1.000196
12000.0	650.6	1.1	20.2	832.7	643.4	321.0	7.2	1.000192
12500.0	643.6	.4	20.3	819.2	644.5	312.2	7.4	1.000189
13000.0	631.4	-.6	20.7	800.6	643.4	302.0	9.1	1.000166
13500.0	619.5	-1.6	21.1	794.2	642.2	290.0	10.3	1.000183
14000.0	607.8	-2.6	21.5	782.0	641.0	290.4	11.1	1.000160
14500.0	596.3	-3.5	21.9	770.0	639.9	300.7	11.2	1.000177
15000.0	584.9	-4.5	21.6	750.0	636.7	305.3	11.3	1.000174
15500.0	573.7	-5.5	20.9	740.2	637.0	310.0	11.8	1.000171
16000.0	562.6	-6.4	20.2	734.5	636.4	313.5	12.4	1.000168
16500.0	551.8	-7.1	20.8	722.1	635.0	317.0	12.8	1.000165
17000.0	541.1	-7.6	22.0	709.0	635.0	317.7	13.3	1.000162
17500.0	530.6	-8.8	22.0	696.9	633.5	313.9	13.7	1.000159
18000.0	520.2	-10.0	22.0	680.4	632.1	310.0	13.8	1.000157
18500.0	510.1	-11.2	22.0	670.0	630.7	303.9	13.7	1.000154
19000.0	500.1	-12.4	22.0	667.0	629.2	300.0	12.7	1.000152
19500.0	490.0	-13.7	22.1	657.5	627.7	293.0	11.9	1.000149
20000.0	480.1	-14.9	22.2	647.4	626.1	289.0	11.4	1.000147
20500.0	470.4	-16.2	22.3	637.5	624.0	284.3	11.7	1.000144
21000.0	460.6	-17.4	22.4	627.7	623.1	270.3	13.3	1.000142
21500.0	451.5	-18.7	22.5	610.0	621.5	275.0	14.8	1.000139
22000.0	442.4	-20.0	22.5	608.0	620.0	274.4	16.3	1.000137
22500.0	433.4	-21.2	22.6	599.3	610.4	270.7	16.5	1.000135
23000.0	424.7	-22.5	22.7	590.1	610.0	260.3	16.3	1.000133

STATION ALTITUDE 3989.00 FEET MSL
7 MAY 62 1000 MDT
ASCENSION NO. 196

UPPER AIR DATA
127000Z
WHITE JAWES

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 9 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CELSIUS	TEMPERATURE DEWPOINT DEGREES CELSIUS	REL HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (IN)	WIND SPEED KNOTS	INDEX OF REFRACTION
23500.0	410.1	-23.8	-39.0	22.8	581.1	615.3	200.0	16.0	1.000131
24000.0	407.7	-25.0	-40.1	22.9	572.3	613.7	211.1	15.8	1.000129
24500.0	399.4	-26.3	-41.1	23.0	563.5	612.1	201.9	15.8	1.000127
25000.0	390.9	-27.5	-42.1	23.3	554.4	610.6	200.0	16.0	1.000124
25500.0	382.7	-28.8	-43.1	23.6	545.4	609.0	291.2	17.0	1.000122
26000.0	374.6	-30.0	-44.0	23.9	536.6	607.5	200.0	18.3	1.000120
26500.0	366.6	-31.3	-45.0	24.1	528.0	605.9	297.0	18.8	1.000118
27000.0	358.9	-32.5	-46.0	24.4	519.5	604.4	293.2	19.2	1.000116
27500.0	351.3	-33.7	-47.0	24.7	511.1	602.8	297.0	18.0	1.000114
28000.0	343.8	-35.0	-48.0	25.0	502.9	601.2	293.4	16.7	1.000113
28500.0	336.4	-36.0	-48.8	25.0	494.1	600.0	200.0	17.1	1.000111
29000.0	329.1	-37.0	-50.0	24.2**	485.5	598.7	270.0	18.3	1.000109
29500.0	321.9	-38.3	-53.4	18.4**	477.5	597.1	274.0	20.9	1.000107
30000.0	314.6	-39.6	-57.0	12.0**	469.0	595.4	274.0	23.8	1.000105
30500.0	307.9	-40.9	-63.5	6.8**	461.8	593.7	270.0	25.6	1.000103
31000.0	301.2	-42.2	-77.2	1.0**	454.2	592.1	270.0	27.3	1.000101
31500.0	294.4	-43.4			446.5	590.6	277.0	27.5	1.000099
32000.0	287.7	-44.5			438.4	589.1	273.4	27.6	1.000098
32500.0	281.2	-45.7			430.6	587.6	273.0	27.5	1.000096
33000.0	274.8	-46.3			423.0	586.1	271.0	27.5	1.000094
33500.0	268.6	-48.0			415.5	584.6	270.0	27.8	1.000093
34000.0	262.5	-49.1			408.2	583.1	270.1	28.1	1.000091
34500.0	256.6	-50.3			401.0	581.6	260.9	29.2	1.000089
35000.0	250.7	-51.5			394.0	580.1	267.0	30.2	1.000088
35500.0	244.9	-52.4			386.6	578.6	260.0	32.0	1.000086
36000.0	239.2	-53.4			379.2	577.5	260.0	33.9	1.000084
36500.0	233.6	-54.4			372.0	576.2	264.1	35.3	1.000083
37000.0	228.2	-55.3			364.9	575.0	262.0	36.4	1.000081
37500.0	222.8	-55.9			357.2	574.2	261.4	37.7	1.000080
38000.0	217.5	-56.5			349.7	573.4	260.9	39.3	1.000078
38500.0	212.3	-57.1			342.4	572.6	260.5	40.9	1.000076
39000.0	207.3	-57.7			335.2	571.8	260.0	42.4	1.000075
39500.0	202.4	-58.3			328.2	571.0	260.0	43.9	1.000073
40000.0	197.6	-58.8			321.2	570.4	260.0	45.3	1.000072
40500.0	192.9	-59.2			314.1	569.8	260.0	46.6	1.000070
41000.0	188.2	-59.7			307.2	569.2	260.0	48.2	1.000068
41500.0	183.7	-60.1			300.5	568.6	260.0	49.8	1.000067
42000.0	179.3	-61.0			294.3	567.4	260.0	51.5	1.000066
42500.0	175.0	-59.9			288.9	568.9	261.2	53.0	1.000064
43000.0	170.8	-58.6			277.0	570.7	262.1	54.6	1.000062

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3939.00 FEET MSL
7 MAY 62
ASCISSION NO. 196

UPPER AIR DATA
1270020190
WHLT DATA'S

TABLE 9 Cont'd

GEODETIC COORDINATES
32.40043 LAT DEG
100.57033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TR)	SPEED KNOTS	
43500.0	166.8	-58.1		270.1	571.3	203.0	50.2	1.000000
44000.0	162.8	-57.8		263.3	571.7	203.9	57.8	1.000059
44500.0	158.9	-57.5		250.7	572.1	203.3	57.4	1.000057
45000.0	155.2	-57.2		250.3	572.5	202.0	56.2	1.000056
45500.0	151.5	-56.9		244.1	572.9	201.0	54.7	1.000054
46000.0	147.9	-57.0		230.3	572.8	200.5	52.8	1.000053
46500.0	144.3	-57.4		233.0	572.3	209.9	50.9	1.000052
47000.0	140.9	-57.7		227.8	571.8	200.7	50.7	1.000051
47500.0	137.5	-58.1		222.8	571.4	201.0	50.6	1.000050
48000.0	134.3	-58.4		217.8	570.9	202.4	50.8	1.000049
48500.0	131.1	-58.8		213.0	570.4	203.2	51.4	1.000047
49000.0	127.9	-59.1		208.2	570.0	204.0	52.0	1.000046
49500.0	124.9	-59.5		203.6	569.5	203.2	50.4	1.000045
50000.0	121.9	-59.8		199.0	569.0	200.4	48.8	1.000044
50500.0	119.0	-60.2		194.6	568.6	200.0	46.6	1.000043
51000.0	116.2	-60.5		190.3	568.1	200.0	44.3	1.000042
51500.0	113.4	-60.7		185.9	567.6	200.0	42.4	1.000041
52000.0	110.7	-60.1		181.0	568.0	200.7	41.3	1.000040
52500.0	108.0	-59.5		176.1	569.4	207.0	40.2	1.000039
53000.0	105.4	-59.7		172.1	569.1			1.000038
53500.0	102.9	-60.4		168.5	568.2			1.000038
54000.0	100.4	-61.1		164.9	567.3			1.000037

STATION ALTITUDE 3939.00 FEET MSL
7 MAY 82
ASCENSION NO. 196 1000 MDT

BAROMETER LEVELS
1270026190
WITH STAIRS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

TABLE 10

PRESSURE EQUIVALENT		TEMPERATURE		REL. HUM.		WIND DATA	
MM HG	F	AIR DEGREES	DEW POINT CENTIGRADE	PERCENT		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5014.	13.6	1.3	43.		179.9	1.4
800.0	6090.	11.1	-8.7	24.		259.0	1.9
750.0	8432.	6.6	-13.0	23.		201.7	4.4
700.0	10272.	1.8	-17.0	22.		317.7	7.6
650.0	12229.	.9	-19.5	20.		317.3	7.0
600.0	14323.	-3.2	-22.0	22.		299.0	14.2
550.0	16563.	-7.2	-25.7	21.		317.9	12.9
500.0	18978.	-12.4	-29.7	22.		300.1	12.7
450.0	21586.	-18.0	-35.0	22.		275.3	13.2
400.0	24423.	-26.2	-41.1	23.		281.0	13.8
350.0	27543.	-34.0	-47.1	25.		297.2	17.8
300.0	31026.	-42.4				279.3	27.4
250.0	34980.	-51.6				267.0	30.3
200.0	39055.	-58.6				260.0	44.5
175.0	42393.	-59.9				261.1	53.0
150.0	45582.	-58.8				260.0	54.0
125.0	49350.	-59.4				265.1	50.5
100.0	53918.	-61.2					

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 1051.27 FEET MSL
7 MAY 62
ASCENSION NO. 42

SIGNIFICANT LEVEL DATA
12701.0042
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

TABLE 11

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUMID. PERCENT
880.7	4051.4	17.9	30.0
859.0	5642.6	15.1	31.0
791.6	7002.1	9.6	39.0
773.4	7634.4	8.2	20.0
700.0	10310.0	2.7	10.0
617.4	13613.1	-1.9	15.0
568.5	15754.9	-6.7	15.0
544.6	16854.6	-8.0	14.0
500.0	19014.6	-13.5	17.0
400.0	24450.7	-27.2	18.0

GEODETIC COORDINATES
32.40175 LAT DEG
106.51232 LONG DEG

UPPER AIR DATA
1270100042
LC-37

TABLE 12

STATION ALTITUDE 4051.27 FEET MSL
7 MAY 82 1100 MDT
ASCENSION NO. 42

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	TEMPERATURE DEW POINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION WIND DEGREES (TD)	SPEED KNOTS	INDEX OF REFRACTION
4051.4	880.7	17.9	2.6	36.6	1050.6	665.7	110.0	2.9	1.000267
4500.0	860.7	16.6	.6	33.7	1035.0	664.1	110.0	2.5	1.000210
5000.0	851.3	15.2	-1.7	31.2	1025.9	662.4	102.5	2.1	1.000253
5500.0	830.0	13.8	-2.2	32.9	1012.5	660.7	150.7	1.9	1.000249
6000.0	820.9	12.4	-2.6	34.9	999.2	659.1	171.0	1.9	1.000246
6500.0	800.2	11.0	-3.1	36.9	980.1	657.5	150.5	1.9	1.000242
7000.0	791.7	9.6	-3.7	39.0	975.2	655.0	243.7	2.3	1.000239
7500.0	777.2	8.5	-10.7	24.0	966.1	654.2	272.0	3.7	1.000227
8000.0	762.9	7.4	-14.4	19.5	940.2	652.9	271.3	5.8	1.000220
8500.0	748.8	6.4	-15.7	18.7	932.5	651.7	270.5	8.1	1.000216
9000.0	735.6	5.4	-17.0	18.0	910.5	650.5	277.7	8.6	1.000212
9500.0	721.5	4.4	-18.4	17.2	905.0	649.2	284.2	8.6	1.000209
10000.0	700.1	3.3	-19.7	16.5	891.0	648.0	362.7	8.0	1.000205
10500.0	695.5	2.4	-20.8	15.0	870.0	646.9	310.0	7.9	1.000201
11000.0	681.9	1.7	-21.5	15.0	865.6	646.1	310.5	8.0	1.000190
11500.0	669.1	1.0	-22.2	15.6	849.0	645.5	314.9	7.6	1.000194
12000.0	656.5	.3	-22.8	15.5	835.7	644.5	300.5	7.1	1.000191
12500.0	644.2	-2.3	-23.5	15.3	822.1	643.6	295.3	7.6	1.000188
13000.0	632.1	-1.0	-24.2	15.2	808.0	642.8	262.8	8.6	1.000185
13500.0	620.2	-1.7	-24.9	15.0	795.0	642.0	265.3	10.4	1.000181
14000.0	608.4	-2.8	-25.7	15.0	783.4	640.8	265.5	11.6	1.000178
14500.0	596.7	-3.9	-26.0	15.0	771.7	639.4	291.0	11.7	1.000175
15000.0	585.3	-5.0	-27.6	15.0	760.1	638.1	295.5	11.8	1.000173
15500.0	574.1	-6.1	-28.5	15.0	740.7	636.7	290.5	11.9	1.000170
16000.0	563.1	-7.0	-29.3	14.8	730.7	635.7	365.1	12.2	1.000167
16500.0	552.2	-7.6	-30.1	14.3	724.1	635.0	315.7	12.8	1.000164
17000.0	541.5	-8.4	-30.9	14.2	712.2	634.0	310.7	13.0	1.000161
17500.0	530.9	-9.6	-31.4	14.9	701.0	632.5	317.5	12.9	1.000159
18000.0	520.5	-10.9	-32.0	15.0	691.2	631.0	311.5	12.6	1.000156
18500.0	510.3	-12.2	-32.6	16.3	681.0	629.4	302.9	12.5	1.000154
19000.0	500.3	-13.5	-33.2	17.0	670.9	627.9	297.1	12.8	1.000152
19500.0	490.1	-14.7	-34.2	17.1	660.5	625.4	292.2	13.3	1.000149
20000.0	480.2	-16.0	-35.2	17.2	650.3	624.8	293.9	13.8	1.000147
20500.0	470.4	-17.2	-36.2	17.3	640.2	623.5	285.0	14.3	1.000144
21000.0	460.9	-18.5	-37.2	17.4	630.4	621.7	280.4	14.9	1.000142
21500.0	451.5	-19.8	-38.2	17.5	620.0	620.2	270.2	15.7	1.000140
22000.0	442.3	-21.0	-39.2	17.5	611.1	618.6	272.2	16.6	1.000137
22500.0	433.5	-22.3	-40.2	17.6	601.7	617.1	271.5	17.1	1.000135
23000.0	424.5	-23.5	-41.2	17.7	592.4	615.5	271.5	17.4	1.000133
23500.0	415.9	-24.8	-42.2	17.8	583.5	614.0			1.000131

STATION ALTITUDE 4051.37 FEET MSL
 7 MAY 52 1100 MDT
 ASCENSION NO. 42

UNFLR AIR DATA
 1270100042
 LC-37

TABLE 12 Cont'd

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.51232 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND MOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
24000.0	407.5	-20.1	17.9	574.4	612.4			1.000129

STATION ALTITUDE 4051.57 FEET MSL
7 MAY 82 1100 MDT
ASCENSION NO. 42

NAV. DATA LEVELS
1270160042
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

TABLE 13

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE		REL. HUMIDITY PERCENT	WIND DATA	
		AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	5039.	15.1	-1.9	91.	133.0	4.1
800.0	6708.	10.4	-3.3	30.	266.0	1.8
750.0	8457.	6.5	-15.0	19.	273.4	7.9
700.0	10300.	2.7	-20.0	10.	315.0	7.9
650.0	12250.	-0.0	-23.2	15.	299.7	7.3
600.0	14340.	-3.6	-26.4	15.	289.4	11.7
550.0	16541.	-7.7	-30.3	14.	315.2	12.9
500.0	18938.	-13.5	-33.2	17.	297.1	12.8
450.0	21585.	-20.0	-38.4	17.	275.3	13.9
400.0	24410.	-27.2	-44.2	18.		

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

SIGNIFICANT LEVEL DATA
1270020197

WHITE SANDS

TABLE 14

STATION ALTITUDE 3989.00 FEET MSL

7 MAY 02 1200 MDT

ASCENSION NO. 197

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	TEMPERATURE DUMPOUT	REL. HUM. PERCENT
MILLIBARS	FEET	DEGREES	CENTIGRADE	
681.5	3989.0	23.7	2.0	25.0
669.8	4308.8	19.4	-2.0	22.0
650.0	5016.0	17.5	-3.0	23.0
789.2	7673.0	11.3	-10.5	20.0
700.0	10308.7	2.4	-16.0	19.0
661.4	11800.9	-0.2	-23.7	15.0
640.4	12411.5	1.2	-22.5	15.0
560.0	16145.8	-7.1	-20.0	10.0
544.4	16809.0	-7.8	-29.2	10.0
500.0	19023.9	-12.7	-23.2	10.0
400.0	24473.9	-26.7	-43.6	18.0

GEOLITIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

UPPER AIR DATA
1270020197
WHITE SANDS
TABLE 15

STATION ALTITUDE 3989.00 FEET MSL
7 MAY 62 1200 MDT
ASCENSION NO. 197

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (DEGREES TRUE)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	681.5	23.7	2.5	25.0	1031.2	672.3	230.0	5.1	1.000261
4000.0	681.2	23.6	2.4	24.9	1031.3	672.1	229.9	5.1	1.000261
4500.0	865.7	19.0	-3.0	22.2	1030.1	660.6	223.0	5.7	1.000251
5000.0	850.5	17.5	-3.8	23.0	1017.1	664.9	222.0	6.4	1.000247
5500.0	835.3	16.0	-4.4	24.2	1004.2	663.2	220.9	7.1	1.000244
6000.0	820.4	14.5	-5.0	25.4	991.5	661.4	220.0	7.7	1.000240
6500.0	805.7	13.0	-5.7	26.6	978.9	659.7	220.2	7.9	1.000237
7000.0	791.3	11.5	-6.4	27.8	966.0	657.9	220.0	6.9	1.000233
7500.0	776.8	10.1	-8.1	26.8	953.8	656.2	213.2	5.8	1.000228
8000.0	762.5	8.8	-9.9	25.4	941.0	654.6	200.0	3.9	1.000223
8500.0	748.5	7.4	-11.6	24.0	928.6	652.9	200.0	1.9	1.000219
9000.0	734.8	6.0	-13.7	22.6	916.0	651.3	313.1	1.9	1.000214
9500.0	721.3	4.6	-15.6	21.2	903.8	649.6	350.3	4.7	1.000210
10000.0	708.1	3.2	-17.6	19.4	891.7	647.9	340.5	7.8	1.000206
10500.0	694.9	2.1	-19.4	18.5	879.0	646.5	342.3	10.5	1.000202
11000.0	681.9	1.2	-21.0	17.2	865.3	645.5	343.1	10.1	1.000199
11500.0	669.1	.3	-22.6	15.8	851.9	644.4	354.6	9.0	1.000195
12000.0	656.6	.2	-23.3	15.0	838.2	644.3	303.3	8.0	1.000191
12500.0	644.2	1.0	-22.7	15.0	810.1	643.2	290.7	8.9	1.000167
13000.0	631.9	-1.1	-23.3	15.2	803.8	643.9	280.9	10.3	1.000164
13500.0	619.9	-1.2	-24.3	15.3	793.8	642.6	277.5	11.3	1.000161
14000.0	608.1	-2.3	-25.1	15.4	781.9	641.3	277.6	11.7	1.000178
14500.0	596.6	-3.4	-25.9	15.6	770.2	639.9	270.9	12.0	1.000175
15000.0	585.2	-4.6	-26.7	15.7	756.7	638.6	262.1	12.2	1.000173
15500.0	574.1	-5.7	-27.5	15.8	747.3	637.3	260.0	12.3	1.000170
16000.0	563.1	-6.8	-28.3	16.0	730.2	636.0	244.2	12.2	1.000167
16500.0	552.3	-7.4	-28.9	16.0	723.8	635.2	302.2	12.3	1.000164
17000.0	541.6	-8.1	-29.4	16.0	711.6	634.4	301.4	12.7	1.000161
17500.0	531.0	-9.2	-30.3	16.0	700.7	633.0	300.7	13.0	1.000159
18000.0	520.6	-10.4	-31.3	16.0	690.0	631.6	293.2	13.5	1.000156
18500.0	510.4	-11.5	-32.2	16.0	679.4	630.2	280.2	14.2	1.000154
19000.0	500.5	-12.6	-33.2	16.0	669.1	628.9	281.7	15.0	1.000151
19500.0	490.3	-13.9	-34.1	16.2	658.6	627.3	277.0	15.9	1.000149
20000.0	480.4	-15.2	-35.1	16.4	648.7	625.8	274.0	16.7	1.000146
20500.0	470.7	-16.5	-36.0	16.5	638.7	624.2	272.6	17.4	1.000144
21000.0	461.1	-17.8	-37.0	16.7	628.9	622.6	272.0	17.7	1.000142
21500.0	451.8	-19.1	-37.9	16.9	619.3	621.1	273.2	18.0	1.000139
22000.0	442.6	-20.3	-38.9	17.1	609.9	619.5	274.1	18.2	1.000137
22500.0	433.7	-21.6	-39.9	17.3	600.6	617.9	273.6	18.3	1.000135
23000.0	424.9	-22.9	-40.9	17.5	591.4	616.3	270.3	18.6	1.000133

GEOMETRIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

U, FOR AIR DATA
 1270020197
 WHITE SANDS

STATION ALTITUDE 3949.0 FEET MSL
 7 MAY 62 1200 MDT
 ASCENSION NO. 197

TABLE 15 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GRAMS PER CUBIC METER	SPEED OF SOUND METERS PER SECOND	WIND DIRECTION DEGREES (T)	WIND SPEED KNOTS	INDEX OF REFRACTION
23500.0	410.3	-24.2	17.6	582.4	614.7			1.000131
24000.0	407.8	-25.5	17.8	573.6	613.1			1.000129

STATION ALTITUDE 3989.00 FEET MSL
 7 MAY 02
 ASCENSION 146. 197 1200 MDT

SEA SURFACE LEVEL
 1270020197
 WAVE BANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 16

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES (TN)	SPEED KNOTS
650.0	5012.	17.5	-3.0	25.	222.2	0.4
600.0	6094.	12.4	-0.0	27.	224.0	7.5
750.0	8453.	7.5	-11.0	24.	204.0	2.1
700.0	10290.	2.4	-16.0	19.	341.0	9.6
650.0	12252.	.9	-22.0	15.	290.7	6.3
600.0	14347.	-3.1	-25.0	10.	270.0	12.0
550.0	16586.	-7.5	-29.0	10.	302.1	12.4
500.0	18997.	-12.7	-33.2	10.	201.0	10.1
450.0	21001.	-19.3	-38.1	17.	273.4	10.1
400.0	24433.	-26.7	-43.0	18.		

STATION ALTITUDE 4051.37 FEET MSL
7 MAY 82
ASCENSION NO. 43

SIG. IF ICANT LEVEL DATA
12701.0043
LC-37

GEODETIC COORDINATES
32.40175 LAT DEG
106.51252 LONG DEG

TABLE 17

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
879.7	4051.4	21.2	5.1	35.0
850.0	5622.1	18.4	-2.0	25.0
771.1	7720.8	10.1	-9.5	24.0
700.0	10327.8	3.0	-15.1	25.0
678.1	11170.8	1.3	-17.5	23.0
633.5	12962.2	-0.9	-23.5	16.0
564.3	15964.5	-6.5	-28.1	10.0
535.9	17284.5	-9.1	-29.0	17.0
500.0	19036.5	-12.7	-32.0	17.0
400.0	24484.4	-26.9	-43.4	19.0

STATION ALTITUDE 4051.37 FEET MSL
7 MAY 62 1300 MDT
ASCENSION NO. 43

UPPER AIR DATA
1270160045
LC-37

TABLE 18

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	WIND SPEED KNOTS	WIND DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.4	879.7	21.2	55.0	1037.2	669.7	00	0.0	1.000270
4500.0	865.8	19.9	50.4	1020.1	667.9	265.4	0.3	1.000260
5000.0	850.7	18.5	25.2	1013.3	660.1	265.4	0.6	1.000250
5500.0	835.5	16.9	24.8	1001.2	664.2	265.4	0.9	1.000245
6000.0	820.5	15.4	24.6	983.7	662.4	265.4	1.2	1.000240
6500.0	805.8	13.9	24.5	970.4	660.0	265.4	1.5	1.000235
7000.0	791.4	12.3	24.3	964.2	650.8	265.4	1.8	1.000231
7500.0	777.3	10.8	24.1	952.2	650.9	265.4	1.6	1.000227
8000.0	763.2	9.3	24.1	939.0	650.2	190.4	1.9	1.000223
8500.0	749.1	8.0	24.3	927.1	650.6	160.4	2.7	1.000219
9000.0	735.0	6.6	24.5	914.5	652.0	160.4	1.7	1.000215
9500.0	721.8	5.3	24.7	902.2	650.4	150.5	0.5	1.000212
10000.0	708.6	3.9	24.9	890.0	640.8	340.5	1.3	1.000208
10500.0	695.5	2.7	24.6	877.0	647.3	351.5	2.7	1.000205
11000.0	682.5	1.6	23.4	864.4	640.1	300.5	3.5	1.000201
11500.0	669.7	0.9	21.7	850.0	640.2	292.0	4.6	1.000197
12000.0	657.1	0.3	19.8	835.0	644.4	280.0	6.2	1.000193
12500.0	644.7	-0.3	17.8	822.1	643.7	274.5	7.8	1.000189
13000.0	632.0	-1.0	16.0	809.2	642.9	270.1	8.9	1.000185
13500.0	620.5	-1.9	16.0	796.5	641.8	277.4	10.0	1.000182
14000.0	608.7	-2.8	16.0	784.0	640.7	277.5	10.9	1.000179
14500.0	597.1	-3.8	16.0	771.6	639.0	279.6	12.1	1.000176
15000.0	585.7	-4.7	16.0	759.7	630.4	261.4	13.5	1.000173
15500.0	574.5	-5.6	16.0	747.6	637.3	265.4	13.8	1.000170
16000.0	563.5	-6.6	16.0	736.1	630.2	290.1	13.7	1.000167
16500.0	552.6	-7.6	16.4	724.5	635.0	291.4	12.0	1.000164
17000.0	541.9	-8.5	16.8	713.2	635.8	292.1	11.3	1.000162
17500.0	531.3	-9.5	17.0	701.9	632.0	289.1	11.3	1.000159
18000.0	520.9	-10.6	17.0	690.9	631.4	285.4	11.8	1.000156
18500.0	510.7	-11.6	17.0	680.0	630.1	261.2	12.7	1.000154
19000.0	500.7	-12.6	17.0	669.4	620.9	277.3	14.1	1.000151
19500.0	490.6	-13.9	17.2	659.1	627.3	275.2	15.7	1.000149
20000.0	480.7	-15.2	17.4	649.0	625.8	275.0	17.6	1.000146
20500.0	470.9	-16.5	17.5	639.1	624.2	275.0	19.2	1.000144
21000.0	461.4	-17.8	17.7	629.5	622.0	275.2	20.5	1.000142
21500.0	452.0	-19.1	17.9	619.7	621.0	274.5	21.3	1.000139
22000.0	442.8	-20.4	18.1	610.5	619.4	272.5	21.5	1.000137
22500.0	433.9	-21.7	18.3	601.1	617.0	270.0	21.9	1.000135
23000.0	425.1	-23.0	18.5	592.0	610.2	269.0	22.5	1.000133
23500.0	416.5	-24.3	18.6	583.0	614.0			1.000131

STATION ALTITUDE 4051.37 FEET MSL
7 MAY 82
ASCENSION NO. 43

UPPER AIR DATA
1270100043
LC-37

GEOMETRIC COORDINATES
32.40175 LAT DEG
106.31232 LONG DEG

TABLE 18 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
24000.0	408.0	-25.6	18.8	574.2	612.4			1.000129

GEODLTIC COORDINATES
32.40175 LAT DEG
106.31232 LON DEG

LABORATORY LEVEL
1270120045
LC-37

STATION ALTITUDE 4051.3/ FEET MSL
7 MAY 62 43 1300 MDT
ASCENSION NO. 43

TABLE 19

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUMID.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES (STN)	SPEED KNOTS	
859.0	5016.	18.4	-2.0	23.	263.7	.6	
806.0	6705.	13.2	-6.7	24.	263.7	1.0	
756.0	8468.	8.1	-11.1	24.	160.0	2.7	
705.0	10318.	3.0	-15.1	25.	339.0	4.5	
656.0	12274.	-1.1	-21.1	19.	275.0	7.2	
600.0	14363.	-3.5	-25.7	10.	276.0	11.7	
548.0	16601.	-7.8	-28.0	16.	291.0	12.3	
506.0	19010.	-12.7	-32.0	17.	277.1	14.2	
456.0	21613.	-19.4	-37.0	16.	274.0	21.3	
406.0	24444.	-26.9	-43.4	19.			

STATION ALTITUDE 3989.00 FEET MSL
 7 MAY 62
 ASCENSION NO. 198

SIGNIFICANT LEVEL DATA
 1270020190
 WHITE SANDS
 TABLE 20

STATION ALTITUDE 3989.00 FEET MSL
 1400 MDT

GEOMETRIC ALTITUDE FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
679.9	24.1	.4	21.0
850.0	20.7	-2.4	21.0
503.0	14.9	-5.5	24.0
720.6	6.3	-6.8	33.0
700.0	4.1	-9.3	37.0
676.4	1.3	-9.0	44.0
659.2	2.2	-21.0	16.0
608.6	-2.4	-24.7	16.0
559.0	-7.3	-28.6	16.0
551.0	-7.3	-27.5	18.0
500.0	-12.2	-32.2	17.0
420.0	-23.9	-40.4	20.0
400.0	-26.4	-42.5	20.0

STATION ALTITUDE 3989.00 FEET MSL
 1400 MDT

STATION ALTITUDE 3989.10 FEET MSL
7 MAY 82
ASCENSION NO. 198 1400 MDT

UPPER AIR DATA
1270020490
WHITE SANDS
TABLE 21

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION (IN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
3969.0	879.9	24.1	21.0	1020.4	072.6	150.0	6.0	1.000256
4000.0	879.6	24.1	21.0	1020.2	072.5	150.1	6.0	1.000256
4500.0	864.3	22.3	21.0	1016.4	070.5	150.7	6.2	1.000251
5000.0	849.2	20.6	21.0	1004.6	068.5	161.0	6.4	1.000246
5500.0	834.2	18.8	22.0	993.3	066.4	163.0	6.6	1.000243
6000.0	819.5	17.0	22.4	982.0	064.2	170.0	6.9	1.000239
6500.0	805.0	15.2	23.9	970.6	062.1	174.7	7.2	1.000235
7000.0	790.5	13.7	25.3	950.3	060.4	175.6	7.2	1.000232
7500.0	776.1	12.2	26.8	945.6	058.7	160.9	6.5	1.000223
8000.0	762.1	10.7	28.3	933.5	057.0	161.5	5.9	1.000225
8500.0	748.3	9.3	29.9	921.3	055.3	160.5	5.9	1.000222
9000.0	734.7	7.8	31.4	909.3	053.6	155.7	5.8	1.000219
9500.0	721.4	6.4	32.9	897.3	051.9	153.0	5.4	1.000215
10000.0	708.1	5.0	35.4	885.3	050.2	151.1	5.0	1.000212
10500.0	695.0	3.5	38.5	873.7	048.5	173.0	3.8	1.000210
11000.0	682.1	2.0	42.3	862.2	046.7	210.5	4.0	1.000207
11500.0	669.3	1.7	32.6	847.4	045.2	247.3	6.1	1.000200
12000.0	656.8	2.0	16.0	831.0	040.4	263.2	9.9	1.000191
12500.0	644.4	.9	16.0	818.6	045.1	272.9	14.1	1.000188
13000.0	632.3	-2.2	16.0	806.4	043.6	273.4	15.8	1.000185
13500.0	620.4	-1.3	16.0	794.4	042.8	277.1	16.8	1.000182
14000.0	608.7	-2.3	16.0	782.6	041.3	270.9	17.1	1.000179
14500.0	597.0	-3.5	16.0	770.9	039.9	274.1	16.5	1.000176
15000.0	585.6	-4.6	16.0	759.3	038.6	272.0	15.4	1.000173
15500.0	574.4	-5.7	16.0	747.9	037.2	271.7	13.3	1.000170
16000.0	563.4	-6.8	16.0	736.7	035.9	270.9	11.6	1.000167
16500.0	552.5	-7.3	17.6	725.7	035.3	263.1	10.5	1.000165
17000.0	541.8	-8.2	17.8	711.9	034.3	263.0	10.4	1.000162
17500.0	531.2	-9.1	17.6	700.7	033.1	267.5	10.8	1.000159
18000.0	520.8	-10.1	17.4	689.0	031.9	263.0	12.1	1.000156
18500.0	510.7	-11.1	17.2	676.7	030.7	270.3	13.7	1.000154
19000.0	500.7	-12.1	17.0	668.0	029.5	271.5	15.5	1.000151
19500.0	490.6	-13.5	17.3	656.0	027.9	272.5	17.4	1.000149
20000.0	480.8	-14.8	17.7	646.2	026.2	271.6	18.7	1.000146
20500.0	471.1	-16.2	18.0	636.3	024.6	270.0	19.8	1.000144
21000.0	461.6	-17.6	18.4	629.9	022.9	260.3	21.1	1.000142
21500.0	452.3	-18.9	18.7	619.7	021.2	260.2	22.7	1.000140
22000.0	443.2	-20.3	19.1	610.5	019.5	263.0	23.8	1.000137
22500.0	434.3	-21.7	19.4	601.4	017.9	260.4	24.6	1.000135
23000.0	425.5	-23.0	19.8	592.0	016.2			1.000133

STATION ALTITUDE 3500.00 FEET MSL	U. PER AIR DATA	GEODETIC COORDINATES
7 MAY 02	1270020190	32.40043 LAT DEG
ASCENSION NO. 198	WHTF JAMES	106.57033 LON DEG
1400 MDT		

TABLE 21 Cont'd

GEOMETRIC ALTITUDE	PRESSURE	TEMPERATURE	REL. HUM.	DENSITY	SPEED OF	WIND DATA	INDEX
MSL FEET	MILLIBARS	AIR DEGREES	PERCENT	GM/CM ³	SOUND	DIRECTION	OF
				METER	KNOTS	DEGREES (IN)	REFRACTION
3500.0	410.9	-24.3	20.0	583.5	014.0		1.000131
2400.0	408.3	-25.4	20.0	573.9	013.3		1.000129

STATION ALTITUDE 3989.00 FEET MSL
 7 MAY 62
 ASCENSION NO. 13400 MDT

MAINTENANCE LEVELS
 1270020190
 WHITE SANDS

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LONG DEG

TABLE 22

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT		DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4971.	20.7	-2.4	21.		160.0	9.3
760.0	6068.	14.6	-5.5	24.		170.0	7.4
750.0	8440.	9.5	-7.3	30.		150.0	5.9
700.0	10299.	4.1	-9.3	37.		150.0	4.4
650.0	12263.	1.4	-21.6	10.		270.0	12.1
600.0	14358.	-3.2	-25.4	10.		274.0	10.7
550.0	16396.	-7.4	-27.6	10.		260.7	10.2
500.0	19009.	-12.2	-32.2	17.		271.0	15.6
450.0	21616.	-19.3	-37.1	19.		265.0	23.1
400.0	24447.	-26.4	-42.5	20.			

